

CHILOGNATHA.
SPIROBOLUS, Brandt.

SPIROBOLUS CINCTIPES, n. sp.

♀. Reddish tawny, with the hind borders of the segments blackish; legs and antennæ grey, banded with white: a linear impression down the centre of the head; first segment rounded at the lateral angles, with a marginal ridge, not striated; remaining segments with lateral irregular striations; preanal segment subspinose behind, not extending to a level with the extremity of the anal valves; fifty-five dorsal segments; preanal plate subtriangular, compressed; antennæ short, thick, with all the joints excepting the last of nearly equal length, the last joint forming a terminal button; eyes in a rounded subtriangular mass, blackish, grouped in six rows; 103 pairs of legs; length 3 inches 10 lines.

Allied to *S. gaimardi* of Gervais from New Ireland, but with a greater number of segments and legs, and very different coloration. Several examples of this species were obtained; but, unfortunately, all but one were broken beyond the possibility of rearrangement of the parts: the type, being much larger than the others, and being merely separated in the middle, was easily readjusted.

3. On some Spiders collected by the Rev. George Brown in Duke-of-York Island, New Britain, and New Ireland.
By the Rev. O. P. CAMBRIDGE, M.A., C.M.Z.S.

[Received March 12 1877.]

I am much indebted to the Secretary of the Zoological Society for the opportunity of examining a few Spiders collected, among numerous other natural-history objects, by the Rev. George Brown in Duke-of-York Island, New Britain, and New Ireland. Two of these spiders, an *Argiope* (family *Epeirides*) and a *Sarotes* (family *Thomisides*) appear to me to be undescribed; and upon the former I have taken the liberty to confer Mr. Brown's name. Another of the Spiders, a very distinct and handsome *Gasteracantha* (*G. panisicca*, Butl.), has been already described, but only from dried examples, which must have wholly lost their characteristic colours and markings; I have therefore subjoined a description of its colours and markings from Mr. Brown's specimens. The remaining Spider is one of those gigantic *Nephilæ* (specially characterized by two small tubercular eminences on the middle of the cephalothorax) of the orbicular snares of which most natural-history collectors in exotic regions bring home startling accounts, but of which scarcely any collectors have yet been sufficiently observant to detect the minute males. This, however, is the sex in which the araneologist expects to find the most conclusive specific characters; and, indeed, until the males come to hand, it is often exceedingly difficult to give a reliable opinion upon the specific identity of these and many other Spiders.

Family EPEIRIDES.
Genus NEPHILA, Leach.

NEPHILA CHRYSOGASTER.

Epeira chrysogaster, Walck. Ins. Apt. ii. p. 92.

Nephila chrysogaster, Cambr. P. Z. S. 1871, p. 620, pl. xlix. figs. 3, 4.

Numerous examples of this enormous Epeirid were contained in Mr. Brown's collections. It is most probably identical with *Aranea maculata*, Fabr. (*A. longipes*, Fabr., and *Nephila maculata*, Leach), as well as with *N. imperialis*, Dol. I have myself received it from several parts of a wide exotic area, including Ceylon, Bombay, Manilla, Labuan, Hongkong, and Celebes; Mr. Brown's examples now add another locality to those already recorded. In all of these localities it appears to be an abundant Spider. I have, however, only as yet received the male from Manilla, Labuan, and Ceylon. This sex is so minute (scarcely measuring more than two lines in length, while the female reaches as much as two inches and even more) and is so unlike the female in form, colours, and structure, that it is probably on these accounts overlooked by collectors who have not had their attention specially called to the fact of this great disparity between the sexes.

Genus ARGIOPE, Sav.

ARGIOPE BROWNII, sp. n.

Adult female, length very nearly 9 lines.

The *cephalothorax* is as long as broad, the thorax nearly round, broader than long; the caput is suddenly and strongly constricted laterally, and projects forward. The upper surface is flat, and its colour is dark brown; the occipital region, that of the four central eyes, and a longitudinal stripe running from them to the occiput are brownish orange-yellow; the sides (towards the margins) are covered with small tubercular granulosities; and the normal converging indentations are covered with light-grey adpressed hairs; the stripes of grey thus formed converge to the thoracic indentation, which is large and deep, and give the cephalothorax a very distinctly radiated appearance. There are other hairs also; but these are the chief.

The *eyes* of the four central and lateral pairs are seated on strong tubercular prominences and (looked at from the front) in a straight line. They are all small and do not differ very much in size; the four central eyes form a quadrangular figure whose fore side is shorter than the hinder one, and its longitudinal considerably longer than its transverse diameter; the interval between the eyes of the fore central pair rather exceeds a diameter; and the height of the clypeus is less than half that of the facial space.

The *legs* are long and tolerably strong, of a dark reddish yellow-brown colour, furnished with hairs, bristles, and spines: the hairs and bristles appear to be most numerous underneath the tibiæ; but

the examples received had been subjected to so much maltreatment that the armature and clothing of the legs were almost destroyed.

The *palpi* are moderate in length and strength, and are apparently similar in colour and armature to the legs.

The *fulces* are tolerably long and strong, straight, perpendicular, rounded (in profile) towards their base in front, and similar in colour to the cephalothorax, though perhaps of a rather duller hue.

The *maxillæ* are of normal form, of a deep blackish red-brown colour, with a pale anterior margin.

The *labium* is short, somewhat rounded at the apex, of an orange-yellow colour, paler at the apex, and with a deep reddish-brown patch on each side.

The *sternum* is somewhat heart-shaped and of an orange-yellow colour, clothed with greyish hairs.

The *abdomen* is large, of a rather flattened form, truncated before, broadest across the middle, behind which, on each side, are three largish rounded lobes giving the margins of the hinder extremity a strongly sinuous appearance; the hinder extremity is also lobi-form, and beneath it to the spinners, over which it projects considerably, the surface is strongly rugulose. The upperside is dark dull brown thickly covered with rather yellowish or whitish cretaceous spots, as far as the second marginal lobes, behind which the colour is yellowish brown, spotted thinly with pale spots; the posterior half of the abdomen exhibited traces of variously shaped patches (apparently symmetrical in their uninjured state) of white, silky pubescence; the sides are a mixture of yellow-brown, dark brown, and black, spotted with yellowish, as well as with patches and lines of greyish hairs. The underside is deep brown, with a broad yellow marginal band edged outside with a whitish border, which encircles the areas of the spinners, and has two lateral projecting portions on each side between the spinners and the genital aperture; this last consists of two oval openings, one on each side, in front of a largish, transverse, oval, nearly black prominence. The fore half of the upperside has six impressed blackish spots, in three transverse pairs succeeding each other in a longitudinal direction.

The above description has been collected from the fragments of four examples; it cannot, therefore, be looked upon as altogether satisfactory, though there will be found sufficient distinctive specific characters to render the species recognizable. In its perfect state it is probably a very beautiful spider, and is allied to, though quite distinct from the common South-American species *Argiope argentata*, Fabr.

Family GASTERACANTHIDES.

Genus GASTERACANTHA.

GASTERACANTHA PANISICCA.

Gasteracantha panisicca, Butler, Trans. Ent. Soc. Lond. May 1873, p. 162, pl. iv. fig. 14.

Two females of this distinct Spider were contained in Mr. Brown's

collection. The examples from which Mr. Butler's description was made were dried, and consequently had lost the characteristic colours and markings of the abdomen. The upperside of this part is orange-yellow, with a very broad nearly black transverse band on the fore extremity, having, however, a narrow orange margin in front of it, but comprising the ordinary boss-like markings on the anterior margin: these, as well as the rest of the markings, are of a deep red-brown colour, as are also the six abdominal spines, of which the two posterior pairs are of a brilliant deep purple and magenta metallic hue. The underside is black, studded thickly with minute shining tubercles, and blotched sparingly with reddish orange-yellow spots and patches.

The *sternum* is black with a large, round, very conspicuous, reddish orange-yellow spot in the centre.

The *cephalothorax* and *falces* are of a rich black, and the *legs* of a black-brown colour.

Family THOMISIDES.

Genus SAROTES, Sund., = OLIOS, Walck., ad partem.

SAROTES VULPINUS, sp. n.

Adult female, length very nearly 10 lines.

The *cephalothorax* is longer than broad, round-oval behind, and constricted laterally at the caput; its colour is a foxy yellowish red, paler at the occiput, and with an indistinct longitudinal central line on the middle part of the caput; and the surface is clothed with greyish sandy hairs.

The *eyes* are in two transverse lines, the foremost straight, the hinder one slightly curved, the convexity of the curve directed backwards. They are of the same colour as the cephalothorax; the four lateral eyes are seated in front of a tubercle and are considerably the largest of the eight; the rest scarcely appear to differ in size. Those of the posterior row are separated by equal intervals of nearly about two diameters' extent; the interval between the fore centrals is equal to a diameter, and each is very near but contiguous to the fore lateral eye on its side. The height of the middle of the clypeus is equal to the diameter of one of the fore central eyes: the interval between the eyes of each lateral pair is equal to the diameter of the fore lateral eye; and the fore central eyes form a square whose anterior side is the shortest, and its longitudinal rather greater than its transverse diameter.

The *legs* are long, strong, furnished with hairs, bristles, and strong spines, and of a yellow-brown colour. All have the tarsi and metatarsi covered with a scopula or pad of close-set hairs on the underside. Their relative length is 2, 1, 4, 3. Those of the first and second pairs are much the longest; but there is not much difference between them; and this is also the case with those of the third and fourth pairs.

The *palpi* are moderate in length and strength, similar to the

legs in colour and armature, and furnished with a scopula beneath the digital joints.

The *falces* are tolerably long and strong, of a darker hue than the cephalothorax, straight but sloping on their inner sides towards the extremity, where they are furnished with long reddish hairs.

The *maxillæ* are rather long and strong, broadest towards their extremity, where they are rounded, straight, but inclined slightly to the labium; they are of a reddish yellow colour, palest at their fore extremity, where they are furnished thickly with a fringe of strong reddish hairs.

The *labium* is of a somewhat oblong form, half the length of the *maxillæ*, with a convex outer surface and truncated at the apex, its colour being similar to that of the *maxillæ*.

The *sternum* is heart-shaped, paler-coloured than the labium, and clothed with hairs.

The *abdomen* is oblong-oval, tolerably convex above, rather broad behind, rounded at the posterior extremity, and truncated before; it is clothed with brown, greyish-sandy, and yellow-brown hairs, and is of a foxy yellow-brown colour, margined above with a broad but not very clearly defined dull yellowish border; the greater part of the underside is occupied by a large vase-shaped dark red-brown area, the fore extremity of which has a whitish-yellow border; the spinners are short, those of the superior pair the strongest. The genital aperture is small, much obscured by hairs, but apparently somewhat crescent-shaped.

A single example in the Rev. G. Brown's collection.

4. Notes on the Anatomy of the Musk-Deer (*Moschus moschiferus*). By A. H. GARROD, M.A., F.R.S., Prosector to the Society.

[Received March 3, 1877.]

In the large collection of living animals brought home by the Prince of Wales from India were two male specimens of the Musk-Deer (*Moschus moschiferus*), nearly adult, from Nepaul, presented to His Royal Highness by Sir Jung Bahadoor, whose sudden death has been so recently announced. As far as I am aware, the only other individual of the species which had been seen alive in this country, was the female presented by Sir Richard Pollock, K.C.S.I., on March 31st, 1869, to this Society, which formed the subject of Professor Flower's valuable memoir published in our 'Proceedings' (1875, p. 159).

On Feb. 2nd of this year one of the Prince's specimens died at Sandringham; and His Royal Highness having graciously given permission that a post-mortem might be made upon it, Mr. Clarence Bartlett placed it in my hands.

Pathologically it did not present any features of special interest,